

APPENDIX XIV TO PART 86—DETERMINATION OF  
ACCEPTABLE DURABILITY TEST SCHEDULE FOR  
LIGHT-DUTY VEHICLES AND LIGHT LIGHT-  
DUTY TRUCKS CERTIFYING TO THE PROVISIONS  
OF PART 86, SUBPART R

A manufacturer may determine mileage test intervals for durability-data vehicles subject to the conditions specified in § 86.1726. The following procedure shall be used to determine if the schedule is acceptable to the Administrator:

1. Select exhaust system mileage test points and maintenance mileage test points for proposed (prop) schedule.
2. Calculate the sums of the squares corrected to the mean of the system mileages at the proposed test points:

$$A_{prop} = [\sum(X_p)^2 \cdot ((\sum X_p)^2 / N_p)]_{prop}$$

Where:

$X_p$  = Individual mileages at which the vehicle will be tested.

$N_p$  = Total number of tests (including before and after maintenance tests).

(Subscript "p" refers to proposed test schedule).

3. Determine exhaust system mileage test points and maintenance mileage test points based on testing at five thousand mile intervals from 5,000 miles through the final testing point and maintenance mileage test points selected for the proposed schedule in step 1 of this appendix. This schedule will be designated as the standard (std) test schedule.

4. Calculate the sums of squares corrected to the mean of the standard schedule:

$$B_{std} = [\sum(X_s)^2 \cdot ((\sum X_s)^2 / N_s)]_{std}$$

Where:

$X_s$  = Individual mileages at which the vehicle will be tested.

$N_s$  = Total number of tests (including before and after maintenance).

(Subscript "s" refers to standard test schedule).

5. Refer to table I and determine  $t_p$  at  $(N_p \cdot 2)_{prop}$  degrees of freedom and  $t_s$  at  $(N_s \cdot 2)_{std}$ .

6. If  $(A_{prop})^{1/2} \geq t_p / t_s \times (B_{std})^{1/2}$  the proposed plan is acceptable.

TABLE I TO APPENDIX XIV

Degrees of freedom (N-2)	t
1 .....	6.314
2 .....	2.920
3 .....	2.353
4 .....	2.132
5 .....	2.015
6 .....	1.943
7 .....	1.895
8 .....	1.860
9 .....	1.833
10 .....	1.812
11 .....	1.796
12 .....	1.782
13 .....	1.771
14 .....	1.761
15 .....	1.753
16 .....	1.746
17 .....	1.740
18 .....	1.734
19 .....	1.729
20 .....	1.725
21 .....	1.721
22 .....	1.717
23 .....	1.714
24 .....	1.711
25 .....	1.708

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